

**REMARKS**

Claims 2-4 and 6-20 are pending in this application. Claims 6, 7, 13, and 20 have been amended to more particularly point out and distinctly claim Applicants' invention. No new matter is added. The features in the claims as amended were present in the originally filed specification.

These amendments should clarify that, in the invention of the application, the hole is located at the bottom of the bore having a diameter larger than the diameter of the hole (see Figs. 1-3 of the application), the bore exposing the land surrounding the opening of the hole at its bottom, and the bore communicates with the hole through the opening of the hole surrounded by the land.

**The Examiner's Rejection of Claims 2-4 and 6-20 under 35 U.S.C. 102**

The Examiner has rejected Claims 2-4 and 6-20 as allegedly being anticipated under 35 U.S.C. 102(b) by Andry, U.S. Patent No. 6,392,160. Applicants hereby traverse the rejection of Claims 2-4 and 6-20. As stated in the Office Action, the Examiner has taken the position that Andry relates to the claimed substrate and method.

Referring to Andry et al. which is cited by the Examiner in the 35 USC 102(b) rejection of the claims, the "conductive vias" 47, which the Examiner regards as corresponding to the "bores" in the applicant's invention, are different from the bores in the substrate of the application in terms of their location and their relation to the holes (through holes 39 in Andry) (See Fig. 1A). The bore 11 in Fig. 1A of the application exposes, at the bottom of the bore 11, the opening of the hole surrounded by the land 10, and communicates with the hole 26 and 26a through the opening of the hole. In contrast, the vias 47 in Andry which the Examiner has equated with the bores 11 of the present

application neither expose the opening of the holes 39 nor communicate with the opening of the holes, at the bottom of the bores.

As specified in the claims of the application, the "bore" in the invention communicates with the hole through the opening of the hole, and a lead pin of an electronic part is inserted into the hole through the bore. In stark contrast, in the backplane of Andry a lead pin cannot be inserted into the hole 39 through the bore 47, as is evident in Fig. 1A.

According to the invention of the application, there is provided a substrate for mounting an electronic part or parts thereon, which has bores for the insertion of lead pins of the electronic part only at determined locations corresponding to holes in the substrate to be exposed because of the requirement of the insertion of the lead pins, even when the substrate is made by forming built-up layers, i.e., stacked insulation and wiring layers, on a core substrate.

Andry et al. does not anticipate the invention of the application having the unique structure and advantages as mentioned above.

As stated above, Applicants respectfully submit that Andry fails to teach at least one feature of the patented invention as set forth in Claims 2-4 and 6-20. Accordingly, it submitted that since the cited reference fails to include at least one claimed feature of the present invention the 35 U.S.C. 102(b) rejection must be withdrawn.

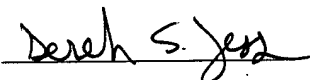
## CONCLUSION

For the reasons set forth above, Applicants' present invention, as recited in the amended claims now more clearly and particularly, is patentable. Reconsideration and withdrawal of all outstanding rejections in this case is hereby respectfully requested.

If further matters remain in connection with this case, the Examiner is invited to telephone the Applicant's undersigned representative to resolve them.

Respectfully submitted,

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Marked copy of the claims pursuant to 37 C.F.R. Section 1.121(c)

6. (Amended) A substrate for mounting an electronic part or parts thereon comprising a core substrate and at least a set of insulation layer and a patterned wiring line layer which is formed on the insulation layer, said set of insulation layer and patterned wiring line layer being positioned at at least one of two opposed sides of the core substrate, the core substrate having holes, in each of which a lead pin of the electronic part is to be inserted, and said core substrate being provided with lands which surround an opening of each of the holes and to which the lead pin inserted in the hole is to be bonded, wherein the insulation layer or insulation layers located at at least one side of the core substrate has bores having a diameter larger than the diameter of the holes so as to expose the land and communicate with the hole surrounded by the land, at the bottom of the bores; [which expose the land at a bottom of the bores, and communicate with the holes;]

wherein the holes, in which the lead pin of the electronic part is to be inserted, have a closed end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted.

7. (Amended) A substrate for mounting an electronic part or parts thereon comprising a core substrate and at least a set of insulation layer and a patterned wiring line layer which is formed on the insulation layer, said set of insulation layer and patterned wiring line layer being positioned at at least one of two opposed sides of the core substrate, the core substrate having holes, in each of which a lead pin of the electronic part is to be inserted, and said core substrate being provided with lands which surround an opening of each of the holes and to which the lead pin inserted in the hole is to be bonded, wherein the insulation

layer or insulation layers located at at least one side of the core substrate has bores having a diameter larger than the diameter of the holes so as to expose the land and communicate with the hole surrounded by the land, at the bottom of the bores; [which expose the land at a bottom of the bores, and communicate with the holes;]

wherein at least one of the holes, in which the lead pin of the electronic part is to be inserted, has an open end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted, and at least one of the holes, in which the lead pin of the electronic part is to be inserted, has a closed end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted.

13. (Amended) A method of manufacturing a substrate for mounting an electronic part or parts thereon, comprising a core substrate and at least a set of insulation layer and patterned wiring line layer, which is formed on the insulation layer, at at least one sides of the core substrate, the core substrate having holes, in each of which a lead pin of the electronic part to be mounted is to be inserted, and being provided with lands which surround the opening of the hole and to which the lead pin inserted in the hole is to be bonded, and holes having an inside wall on which a conductor layer is formed, the conductor layer extending to a land provided on each of the sides of the core substrate in order to connect a wiring line at one side of the core substrate to another wiring line at the opposed side, the land surrounding the opening of the hole in which a lead pin of the electronic part is to be inserted, wherein the insulation layer or layers have bores having a diameter larger than the diameter of the holes so as to expose the land and communicate with the holes, at a bottom of the bores, [which expose the land surrounding the

opening of the hole in which a lead pin of the electronic part is to be inserted, at a bottom of the bores, and communicate with the hole,] and the lands connected to

the wiring lines are covered with the insulation layer,

the method comprising the following steps:

providing a core substrate,

forming holes piercing the core substrate,

forming, on the core substrate and around the ends of the holes, lands for the connection with the lead pin of the electronic parts to be mounted, and lands for the connection with the wiring line layers,

filling the holes with a filling material,

forming at least a set of insulation layer and patterned wiring line layer, which is formed on the insulation layer, at at least one side of the core substrate,

forming bores piercing through the resultant insulation layer or layers at the side of the core substrate on which the electronic part or parts are to be mounted, and exposing the land at the bottom of the bores, and

removing the filling material in the holes, in which a lead pin of the electronic part is to be inserted, to allow each of the holes to communicate with each of the bores.

20. (Amended) A substrate for mounting an electronic part or parts thereon, comprising a core substrate and at least a set of insulation layer and patterned wiring line layer, which is formed on the insulation layer, at opposed sides of the core substrate, the core substrate having holes, in each of which a lead pin of the electronic part to be mounted is to be inserted, and being provided with lands which surround an opening of the hole and to which the lead pin inserted in the hole is to be bonded, and holes having an inside wall on which a conductor layer is formed, the conductor layer extending to a land provided on each of the sides of the core substrate in order to connect a wiring line at one side of the core substrate to another wiring line at the opposed side,

wherein the insulation layer or layers have bores having a diameter larger than the diameter of the holes so as to [, which] expose the land at a bottom of the bore, said land surrounding the opening of the hole in which a lead pin of the electronic part is to be inserted such that said bore communicates with the hole, and the lands connected to the wiring lines are covered with the insulation layer.